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10/579,329	07/13/2007	Yasushi Miyajima	290788US8PCT	1876

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EXAMINER	
RAJAN, KAI	

ART UNIT	PAPER NUMBER
3769	

NOTIFICATION DATE	DELIVERY MODE
07/09/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/579,329	MIYAJIMA ET AL.	
	Examiner	Art Unit	
	Kai Rajan	3769	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-16 and 19-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-16 and 19-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 5, 2009 has been entered.

Note to Applicant Regarding Claim Interpretation

The terms "wherein" and "configured to" in the claim(s) may be interpreted as intended use. Intended use/functional language does not require that reference specifically teach the intended use of the element. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. In particular, in claim 19 Applicant discloses "the steering unit," yet a "steering unit" is not disclosed in claim 1. Furthermore, the claim is indefinite since it would be unclear to one of ordinary skill in the art regarding how to use a wireless communication device that controls electronic equipment to serve as a steering control of a vehicle. The Examiner has found no support within the specification to clarify this combination of embodiments. As such, the Examiner has applied prior art in a manner sufficient to reject the claims as currently presented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4, 8 – 16, and 19 – 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom U.S. Patent No. 6,549,756 in view of Mault et al. U.S. PGPub No. 2003/0208113.

Engstrom discloses a portable electronics input device for controlling electronic equipments, comprising:

a body having an interior portion containing electronics that are configured to perform wireless communication, said wireless communication being at least one of mobile telephone communication and television remote controller communication (Column 2 lines 51 – 66);

bioindex detecting means provided within a region including a holding position of a surface of the body that a user holds while performing said wireless communication, and for detecting, for a time period during which the user grasps the body, bioindex of the user through a skin of the user (Column 2 lines 51 – 67, column 3 lines 1 – 16);

bioindex analyzing means for analyzing bioindex which has been detected by the bioindex detecting means (Column 3 lines 7 – 38); and

selector means for selecting at least one bioindex information from bioindex information which have been detected by the plural bioindex detecting means (Column 2 lines 51 – 67, column 3 lines 1 – 55. Different sensors are selected for measuring based on signal strength),

wherein the bioindex analyzing means serves to analyze bioindex information which has been selected by the selector means (Column 2 lines 51 – 67, column 3 lines 1 – 55),

said surface of said body including a first sensor on a first side of said body and a second sensor on a second side of said body, said first sensor and said second sensor positioned to be in contact with a hand of the user when performing wireless communication (Column 2 lines 51 – 67, column 3 lines 1 – 16),

Engstrom discloses a personal digital assistant with embedded sensors. Engstrom fails to explicitly teach using the personal digital assistant for controlling of any one of electronic equipments including personal computer, television image receiver, video and/or audio signal recording and/or reproducing device and air conditioner. However, Mault et al. a reference in an analogous art of physiological monitoring disclose a personal digital assistant used for collecting physiological data, that can communicate with a home computer, television, or entertainment device via wireless communication (Mault et al. paragraph 0078). It would have been obvious to

one of ordinary skill in the art at the time of the invention to apply the uses of a personal digital assistant as taught by Mault et al. to the device of Engstrom, since the structure and capabilities of personal digital assistants are fundamentally equivalent.

2. The input device according to claim 1,

wherein the bioindex is at least one of sweating, heartbeat, pulse wave, Galvanic Skin Reflex, Galvanic Skin Response, MV (Micro Vibration), myoelectric potential and SPO2 (blood oxygen saturation level), and combination of these bioindices (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16 heart rate).

4. The input device according to claim 1,

wherein the bioindex detecting means is pulse wave detecting means for detecting pulse wave of user (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16).

8. The input device according to claim 1,

wherein the selector means serves to compare signal-to-noise ratios of output values which have been detected by the plural bioindex detecting means to select an output value having value of higher signal-to-noise ratio (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55. Different sensors are selected for measuring based on signal strength.).

9. The input device according to claim 1,

wherein the selector means serves to compare detection levels of output values which have been detected by the plural bioindex detecting means to select an output value having higher detection level (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55. Different sensors are selected for measuring based on signal strength.).

10. The input device according to claim 1,

wherein the selector means serves to compare auto-correlation functions of output values which have been detected by the plural bioindex detecting means to select an output value in which correlation has been taken to more degree (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

11. The input device according to claim 1,

wherein the selector means serves to select one output from outputs from the plural bioindex detecting means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

12. The input device according to claim 1,

wherein the selector means serves to select, as an output value, a value which has been detected substantially as the same value at the plural bioindex detecting means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

13. The input device according to claim 1,

wherein the selector means serves to select, as an output value, an average value obtained by averaging values detected at the respective bioindex detecting means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

14. The input device according to claim 1,

wherein the respective plural bioindex detecting means are similar bioindex detecting means for detecting the same bioindex (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

15. The input device according to claim 1,

wherein the respective plural bioindex detecting means are different kinds of bioindex detecting means for detecting the same bioindex by different techniques (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

16. The input device according to claim 1,

wherein the respective plural bioindex detecting means are different kinds of bioindex detecting means for detecting different bioindices (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 39. Different sensors are selected for measuring based on signal strength.).

19. The input device according to claim 1,

wherein the steering unit is hand-held during control or steering at any one of machines to be controlled including automotive vehicle, train, airplane, ship and industrial machinery (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 39).

20. An input method for a portable electronics input device for controlling electronic equipments, the method comprising:

contacting a body of a portable electronics device with a hand of a user, said body having an interior portion containing electronics that are configured to perform wireless communication, said wireless communication being at least one of mobile telephone communication and remote controller communication (Column 2 lines 51 – 66);

a bioindex detection step of detecting, by detecting means provided within a region including a holding position of a surface of a body, that a user holds while performing said wireless communication, bioindex of the user through a skin of the user for a time period during which the user holds the body to be operated (Column 2 lines 51 – 67, column 3 lines 1 – 16);

a bioindex analysis step of analyzing with a processor bioindex which has been detected at the bioindex detection step (Column 3 lines 7 – 38);

a selecting step of selecting at least one bioindex information from bioindex information which have been detected by the plural bioindex detecting means (Column 2 lines 51 – 67, column 3 lines 1 – 55. Different sensors are selected for measuring based on signal strength),

wherein the bioindex analyzing means serves to analyze and bioindex information which has been selected by the selector means (Column 2 lines 51 – 67, column 3 lines 1 – 55); and

said surface of said body including a first sensor on a first side of said body and a second sensor on a second side of said body, said first sensor and said second sensor positioned to be in contact with a hand of the user when performing wireless communication (Column 2 lines 51 – 67, column 3 lines 1 – 16).

Engstrom discloses a personal digital assistant with embedded sensors. Engstrom fails to explicitly teach using the personal digital assistant for controlling of any one of electronic equipments including personal computer, television image receiver, video and/or audio signal recording and/or reproducing device and air conditioner. However, Mault et al. a reference in an analogous art of physiological monitoring disclose a personal digital assistant used for collecting physiological data, that can communicate with a home computer, television, or entertainment device via wireless communication (Mault et al. paragraph 0078). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the uses of a personal digital assistant as taught by Mault et al. to the device of Engstrom, since the structure and capabilities of personal digital assistants are fundamentally equivalent.

21. The input method according to claim 20,

wherein the bioindex is at least one of sweating, heartbeat, pulse wave, skin temperature, Galvanic Skin Reflex, Galvanic Skin Response, MV (Micro Vibration), myoelectric potential and SPO2 (blood oxygen saturation level), or combination of these bioindices (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16 heart rate).

22. The input method according to claim 20,

wherein the bioindex detection step consists of plural bioindex detection steps, the input method including:

a selection step of selecting at least one bioindex information from bioindex information which have been detected at the plural bioindex detection steps (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55); and

a bioindex analysis step of analyzing bioindex information which has been selected at the selection step (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55).

23. The input method according to claim 22,

wherein the respective plural bioindex detection steps detect the same bioindex (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55).

24. The input method according to claim 22,

wherein the respective plural bioindex detection steps detect the same bioindex by different techniques (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55).

25. The input method according to claim 22,

wherein the respective plural bioindex detection steps detect different bioindices (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55).

26. A portable electronic equipment including an input unit for controlling electronic equipments, comprising:

a body having an interior portion containing electronics that are configured to perform wireless communication, said wireless communication being at least one of mobile telephone communication and television remote controller communication (Column 2 lines 51 – 66);

bioindex detecting means provided within a region including a holding position of a surface of the body with which a finger of a user comes into contact when the user is grasping the body while performing said wireless communication, and for detecting bioindex of the user through a skin of the user for a time period during which the user grasps the body (Column 2 lines 51 – 67, column 3 lines 1 – 16);

bioindex analyzing means for analyzing bioindex which has been detected by the bioindex detecting means (Column 3 lines 7 – 38); and

selector means for selecting at least one bioindex information from bioindex information which have detected by the plural bioindex detecting means (Column 2 lines 51 – 67, column 3 lines 1 – 55. Different sensors are selected for measuring based on signal strength),

wherein the bioindex analyzing means serves to analyze bioindex information which has been selected by the selector means (Column 2 lines 51 – 67, column 3 lines 1 – 55);

said surface of said body including a first sensor on a first side of said body and a second sensor on a second side of said body, said first sensor and said second sensor positioned to be in contact with a hand of the user when performing wireless communication (Column 2 lines 51 – 67, column 3 lines 1 – 16).

Engstrom discloses a personal digital assistant with embedded sensors. Engstrom fails to explicitly teach using the personal digital assistant for controlling of any one of electronic equipments including personal computer, television image receiver, video and/or audio signal

recording and/or reproducing device and air conditioner. However, Mault et al. a reference in an analogous art of physiological monitoring disclose a personal digital assistant used for collecting physiological data, that can communicate with a home computer, television, or entertainment device via wireless communication (Mault et al. paragraph 0078). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the uses of a personal digital assistant as taught by Mault et al. to the device of Engstrom, since the structure and capabilities of personal digital assistants are fundamentally equivalent.

27. The electronic equipment according to claim 26,

wherein the bioindex is at least one of sweating, heartbeat, pulse wave, skin temperature, Galvanic Skin Reflex, Galvanic Skin Response, MV (Micro Vibration), myoelectric potential and SPO2 (blood oxygen saturation level), and combination of these bioindices (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16 heart rate).

Claims 3, 5, 6, and 28 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Engstrom U.S. Patent No. 6,549,756 in view of Mault et al. U.S. PGPub No. 2003/0208113, and further in view of Yollin U.S. Patent No. 5,990,866.

In regard to claims 3, 5, 28, and 35, Engstrom and Mault et al. disclose detecting heart rate from a plurality of sensors disposed on a mobile device (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16), yet fails do disclose measuring temperature or galvanic skin response. However, Yollin a reference in an analogous art of collecting physiological data, discloses

collecting physiological data via at least GSR, heart rate, and temperature sensors (Yollin column 4 lines 2 – 22). It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the heart rate sensors of Engstrom and Mault et al. with the GSR or temperature sensors of Yollin, since Yollin discloses that it is known in the art of physiological monitoring to use any number of alternative sensors depending on the breadth and complexity of the physiological information sought (Yollin column 4 lines 2 – 22).

6. The input device according to claim 5,

wherein the temperature detecting means is composed of finger tip temperature detecting means for detecting finger tip temperature provided at a position with which finger tip comes into contact when the finger tip temperature detecting means is grasped by finger of the user, and palm temperature detecting means provided at a position with which palm of the user comes into contact and for detecting palm temperature (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16).

29. The electronic equipment according to claim 28,

wherein display means for displaying guide display for operation and information is provided at the front face portion of a casing (Engstrom figure 1),

the detecting means being provided at the side surface portion of the casing (Engstrom figure 1).

30. The electronic equipment according to claim 28, comprising:

operation means for an operation input (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55),

wherein the detecting means is provided at a position with which finger of user comes into contact of the surface of the operation means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55).

31. The electronic equipment according to claim 28,

wherein the detecting means is provided at the corner portion of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, figure 1).

32. The electronic equipment according to claim 28,

wherein the bioindex detecting means is pulse wave detecting means for detecting pulse wave of user (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16 heart rate).

33. The electronic equipment according to claim 32,

wherein display means for displaying guide display for operation and information is provided at the front face portion of the casing, and the pulse wave detecting means is provided at the rear face portion opposite to the front face portion of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 16, figure 1).

34. The electronic equipment according to claim 33,

wherein a detection portion comprising a finger holding cover having internal surface shape curved so as to take substantially the same shape as finger tip shape of the user, and a finger chip insertion portion formed between the finger holding cover and the rear face of the casing is provided at the rear face portion side of the casing, light emitting means being provided at the inner surface of the finger holding cover, light receiving means as the pulse wave detecting means being provided at the rear face of the casing opposite to the light emitting means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

36. The electronic equipment according to claim 35,

wherein the temperature detecting means is composed of finger tip temperature detecting means provided at a position with which finger comes into contact when the temperature detecting means is grasped by the finger of the user and for detecting finger chip temperature, and palm temperature detecting means provided at a position with which palm of the user comes into contact and for detecting palm temperature (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

37. The electronic equipment according to claim 36, comprising:

display means serving to display guide display for operation and information at an outer casing front face portion, wherein one of the temperature detecting means is provided at the side surface portion with respect to the outer casing front face portion (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

38. The electronic equipment according to claim 36, comprising: operation means, wherein the finger tip temperature detecting means is provided at a position with which finger of user comes into contact of the surface of the operation means (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

39. The electronic equipment according to claim 36, wherein the palm temperature detecting means is provided at the corner portion of the outer peripheral surface side of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

40. The electronic equipment according to claim 36,

wherein a detecting portion comprising a finger holding cover having an internal surface shape curved so as to take substantially the same shape as finger tip shape of the user, and a finger tip insertion portion formed between the finger holding cover and the rear face of the casing is provided at the rear face portion side of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22),

the finger tip temperature detecting means being provided at the rear face portion of the casing (Engstrom column 2 lines 51 – 67, column 3 lines 1 – 55, Yollin column 4 lines 2 – 22).

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kai Rajan whose telephone number is (571)272-3077. The examiner can normally be reached on Monday - Friday 9:00AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Johnson can be reached on 571-272-4768. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kai Rajan/
Examiner, Art Unit 3769

/Michael C. Astorino/
Primary Examiner, Art Unit 3769

June 25, 2009